Review of Duke Energy Progress, LLC Amended Application for Approval of Rider DSM/EE-11

DOCKET NO. 2019-262-E

South Carolina
Office of Regulatory Staff

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Executive Summary

In Duke Energy Progress, LLC's ("DEP" or "Company") Amended Application for Approval of Rider Demand Side Management ("DSM") and Energy Efficiency ("EE")-11 ("Rider DSM/EE-11" or "Rider") ("Application"), the Company is seeking recovery of $25,986,394 with $15,351,340 (or 59%) attributed to residential customers and $10,635,054 (or 41%) attributed to general service customers to cover the revenue requirements of Rider DSM/EE-11. This report details the Office of Regulatory Staff's ("ORS") findings and recommendations based on its review of the Company's Application, programs, and cost recovery mechanism. Based on its review, ORS recommends the following adjustments:

- A reduction of $592.05 to South Carolina program costs due to insufficient supporting documentation.
- A reduction of $20,688.56 to remove the portion of Long-Term Incentives and Short-Term Incentives for all employees allocated to South Carolina program costs for the Company's Earnings per Share ("EPS") and Total Shareholder Return ("TSR") goals. ORS's recommendation to exclude incentive compensation expenses associated with EPS and TSR is based on the following rationale: 1) payments for earnings goals is not certain; 2) earnings can be influenced greatly by factors such as customer growth and higher authorized returns which are not directly attributed to the actions of Company employees; and 3) incentive payments to employees should be made using increased earnings not through customer rates.

As these adjustments have a negligible impact on the Company's amended proposed rates in this docket, ORS recommends, upon Commission approval, the Company make adjusting journal entries prior to their next annual filing.

The Company's amended proposed rates are shown in the table below.

DSM/EE Rider	Approved Rider 10 Rate *(¢/kWh)*	Requested Rider 11 Rate *(¢/kWh)*	Change to Rider 10 Rate *(¢/kWh)*
Residential	1.049	0.671	(0.378)
General Service	0.636	0.722	0.086

Exhibit 1 (attached) details the development of the requested rates as amended.

ORS finds that the programs continue to perform well and are achieving higher than forecasted savings. The Company's portfolio, excluding the impact of the Distribution System Demand Response ("DSDR") Program, exceeded forecasted 2018 energy savings by 10%, and achieved 87% of the forecasted peak demand reduction in 2018. The DSDR Program provided an additional system energy savings of 44,989,144 kilowatt-hours ("kWhs") and peak demand savings of 275,885 kilowatts ("kWs") in 2018. ORS finds that the updated Rider DSM/EE-11 was developed in accordance with the terms and conditions set forth by the Commission in Docket Nos. 2008-251-E and 2015-163-E and is based on reasonable estimates of participation in the Company's programs.

Background and Introduction

The Company's South Carolina DSM/EE mechanism was established in the stipulation filed on January 23, 2009 in Docket No. 2008-251-E ("Stipulation") and approved by Commission Order No. 2009-373, dated June 26, 2009. Tariffs for the initial set of DSM/EE programs covered under this mechanism were filed in Docket No. 2009-190-E on May 11, 2009, with the initial proposed cost recovery application filing following in Docket No. 2009-191-E on the same date. The Company's initial cost recovery application covered nine (9) DSM and EE programs, with six (6) programs targeting residential customers, two (2) targeting commercial and industrial customers and one (1) program available to all customers.

The 2009 Stipulation set forth the Company's original DSM/EE mechanism and methodology for recovery of prudently incurred DSM/EE program costs, net lost revenues and a program performance incentive ("PPI") equal to 8% of the net savings for DSM programs and 13% of net savings for EE programs (the "Original Mechanism"). DSM/EE costs were to be amortized over a period not to exceed ten (10) years; net lost revenues were not amortized and were recovered only for the first thirty-six (36) months after the installation of a measure; and the PPI was amortized using a ten (10) year amortization period. Net lost revenues and the PPI were to be trued-up following the completion and review of a program's impact evaluation. Large commercial customers using more than 1 million kWhs annually and all industrial customers were eligible to opt out of DEP's DSM/EE programs. Customers that opted out received a DSM/EE credit. All residential customers paid the residential DSM/EE Rider rate. Since the initial cost recovery filing, five (5) additional annual cost recovery applications were approved under the Original Mechanism in Docket Nos. 2010-161-E, 2011-181-E, 2012-93-E, 2013-76-E, and 2014-89-E.

Order No. 2015-596 in Docket No. 2015-163-E approved a new cost recovery and incentive mechanism for DSM and EE programs (the "Revised Mechanism"), to be effective January 1, 2016. Under the Revised Mechanism, DSM/EE costs are to be amortized over a period not to exceed three (3) years, rather than the ten (10) year period used under the Original Mechanism. As in the Original Mechanism, the Company earns a return on unamortized balances at the most recently approved net-of-tax rate of return. Under the Revised Mechanism, net lost revenues are reduced by "Net Found Revenues", which are any increases in revenues resulting from any new activity by DEP that causes a net increase in any customer's demand or energy consumption. The order includes a "Decision Tree" to assist in determining which activities may produce Net Found Revenues. As in the Original Mechanism, net lost revenues are not amortized and are recovered only for the first thirty-six (36) months after the installation of a measure. The Revised Mechanism modifies the PPI to 11.75% of the net savings of the entire DSM/EE portfolio, excluding any low-income programs, education programs, and research and development activities not directly associated with a DSM/EE program. As is the case with DSM/EE costs, the PPI will be amortized over a three (3) year period. The Company is also eligible, under the Revised Mechanism, to receive a $75,000 bonus should it achieve incremental energy savings equal to one percent (1%) of the prior year's retail electricity sales during the five (5)-year period 2015 through 2019. The Company filed the first Application under the Revised Mechanism on September 1, 2015 – the Application for approval of Rider DSM/EE-7 which, with certain modifications, became effective January 1, 2016.

On August 1st of 2016, 2017 and 2018, the Company filed Applications for approval of updated DSM/EE Riders. ORS, in accordance with the terms of the approved settlement agreement and Commission Order No. 2015-596, conducted a review of DEP's filings and approved the Company's filings with certain adjustments.

On August 1, 2019, the Company filed an application for approval of Rider DSM/EE-11 to become effective January 1, 2020. On September 24, 2019, the Company filed an amended application with certain adjustments which modified the rates originally proposed. The impact of the amended application decreased the residential DSM/EE rider from 0.716 ¢/kWh to 0.671 ¢/kWh, and decreased the general service DSM/EE rider from 0.757 ¢/kWh to 0.722 ¢/kWh.

ORS, in accordance with the terms approved in Commission Order No. 2015-596, conducted a review of DEP's amended filing. ORS's review includes an evaluation of the three (3) major cost components associated with the Company's DSM and EE programs, -- Program Costs, Net Lost Revenues and PPI. ORS audited the Company's costs for the period of January 1, 2018 to December 31, 2018 ("Test Period"). ORS also reviewed the Company's cost estimates for the period of January 1, 2019 to December 31, 2019 ("Rate Period").

DSM/EE Programs

The Company's filing includes a request for cost recovery encompassing twenty-one (21) DSM/EE programs. Table 1 below lists the programs and the launch dates of each program.

Table 1: List of DSM/EE Programs

Residential Programs	
Residential Home Advantage Program	01/01/2009
Residential Load Control Program (EnergyWise™)	04/01/2009
Energy Efficient Benchmarking / My Home Energy Report	05/06/2009
Solar Water Heating Pilot	06/01/2009
Residential Smart $aver/ Home Energy Improvement	07/01/2009
Residential Low Income – Neighborhood Energy Saver	10/01/2009
Residential Lighting	01/01/2010
Appliance Recycling	04/15/2010
Residential New Construction	01/01/2012
Multi Family Energy Efficiency	06/01/2014
K12 Performance – National Theater	06/01/2014
Save Energy and Water Kit	11/01/2015
Commercial and Industrial Programs	
CIG Energy Efficiency	05/01/2009
Nonresidential Smart $aver	06/03/2009
CIG Demand Response Automation	05/01/2011
Small Business Energy Saver	11/01/2011
General Service Lighting	04/01/2013
Business Energy Report	12/30/2015
EnergyWise for Business	01/04/2016
Nonresidential Smart $aver Performance Incentive	01/01/2017
Programs for All Customers	
Distribution System Demand Response ("DSDR")	04/01/2008

- The Residential Home Advantage Program was terminated March 31, 2013 because of higher building standards and Energy Star standards that went into effect in 2013, making the program no longer cost effective. The program was replaced by the Residential New Construction Program.
- The Company's implementation vendor for the Appliance Recycling Program went into receivership and discontinued operations on November 19, 2015. Although the Company continues to evaluate options with other vendors that offer appliance recycling, the Company has found that increased costs and required limitations on the program negatively impact the program's viability. The Company does not currently plan to revive this program.
- The Company has added three new programs since the 2015 filing – the residential Save Energy and Water Kit Program, the Business Energy Report and the EnergyWise Business Program. The residential Save Energy and Water Kit Program was launched in November of 2015. It offers participants a free kit including bath aerators, kitchen aerators, shower heads, pipe insulation tape and installation instructions. The program targets residential customers living in single family homes with electric water heaters.
- The Business Energy Report provides a comparative usage report that compares a customer's energy use to their peer groups along with actionable ideas to help them become more energy efficient. The program was launched as a pilot on December 30, 2015, and initial reports were distributed to participants in February 2016. However, after an internal analysis of energy savings and future viability concerns regarding the vendor administering the pilot, the Company terminated the pilot effective August 31, 2017.
- The EnergyWise Business program was launched on January 4, 2016. In 2018, the program achieved less than 2% of the expected energy savings and only 25% of the expected capacity savings. DEP is making changes to the marketing of this program in an attempt to improve the participation going forward.
- Based on Evaluation, Measurement & Verification ("EM&V") reports, the Company determined that a significant portion of efficient lighting products sold under the

Residential Lighting Program were purchased for commercial use. This caused the Company to split the original program into two programs – Residential Lighting and General Service Lighting.

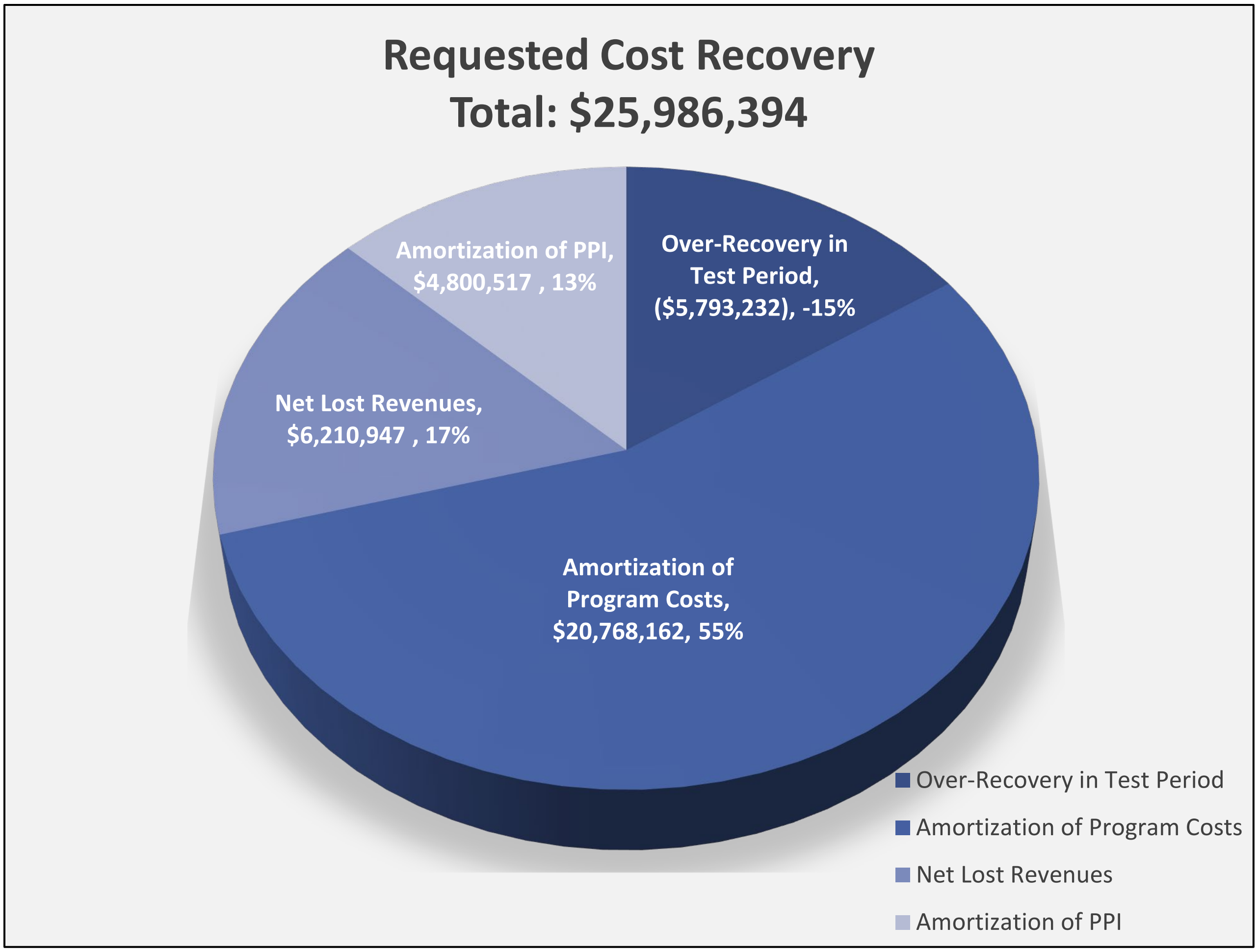
- The DSDR Program is not a typical DSM/EE program. It is a system of electric equipment and operating controls designed to enable the Company to reduce peak demand using the distribution system to reduce generation requirements. Included in the system are new line voltage regulators, additional phase wires, the relocation and addition of line capacitors, modifications of tap line configurations, sensors and intelligent controls on equipment and substations, the enhancement of information technology systems, and a new two-way communications system.
- The Company does not earn PPI for the DSDR Program, the Residential Low Income Program, the Residential Solar Hot Water Pilot, or the K12 Education Program. In addition, under the Original Mechanism, the Company excludes from the PPI computation any programs that do not achieve a Utility Cost Test ("UCT") result of 1.0 or higher. Under the Revised Mechanism the entire portfolio of programs receives a uniform PPI if the portfolio as a whole passes the UCT, which was the case in this Docket.

Program Cost Evaluation

The total amortized cost requested for recovery by DEP in this filing is $25,986,394. For this requested amount, the Company projects an energy savings of 377,634,253 kWhs in 2020, which equates to 6.9 ¢/kWh saved in 2020. Assuming an average five (5)-year life for the measures installed, the lifetime costs average 1.4 ¢/kWh -saved.

The total amortized cost of $25,986,394 is comprised of program costs, net lost revenues, PPI and an (over)recovery during the Test Period. The Company's Revised Mechanism allows DEP to amortize Program Costs and PPI, with carrying costs, over three (3) years. Program Costs reflect a request of $20,768,162, or 80% of the total amortized cost. PPI, which is associated with savings resulting from the implementation of DSM and EE programs, reflects a request of $4,800,517 (or 18%) of the total amortized cost. The Company is also requesting recovery for Net Lost Revenues of $6,210,947 (or 24%) of the total amortized amount, and a reduction of $5,793,232 (or -22%) of the total amortized cost to account for an (over)recovery of actual program costs during the Test Period. However, DEP does not amortize its Net Lost Revenues or any (over)/under recoveries from prior periods, as they are fully recovered during the Rate Period. The breakdown of the requested cost recovery is shown in Chart 1 below:

Chart 1: Rider 11 Requested Cost Recovery



A breakdown of the major cost components of this filing and the development of the billing factors is shown in Exhibit 1 of this report. The requested revenues from residential customers are recovered from all residential ratepayers, while the non-residential revenues are recovered solely from those non-residential ratepayers that do not opt-out of the programs.

Evaluation, Measurement & Verification

The Company has received the following EM&V Reports for the 2017 and 2018 vintages of DEP's programs:

- 2017 EM&V Report for the Duke Energy Progress Commercial, Industrial and Governmental Demand Response Automation (DRA) Program
- EM&V Report for the Residential New Construction Program
- EM&V Report for the Small Business Energy Saver Program
- Residential Energy Assessments Program Evaluation Report - Final
- EnergyWise Business Evaluation Report - Final
- Smart Saver Non-Residential Custom Program Years 2016-2017 Evaluation Report
- EM&V Report for the EnergyWise Home Demand Response Program (Summer PY2018)
- Energy Efficiency Education in Schools Program Year 2017-2018 Evaluation Report
- EM&V Report for the EnergyWise Home Program (Winter 2017/2018)

These EM&V Reports were used by the Company to true-up the 2017 and 2018 vintages of these programs in this filing.

Estimates Used in the Filing

For the most part, the programs' avoided energy amounts, avoided capacity amounts, net lost revenues, and PPI amounts are estimates that were developed using the DSMore model and the Company's most recent planning data. Thus, nearly all the dollar amounts in the filing, with the exception of the Test Period program costs and the trued-up vintages of certain programs, are estimates. The estimated values and dollar amounts are to be trued-up in future filings, based on EM&V results. ORS is familiar with the DSMore model and finds it to be a reasonable tool for this purpose.

Forecasted Retail Sales

For the computation of rates for this filing, the Company has utilized the spring 2019 forecast of retail sales. ORS is familiar with the methodology used to generate the sales forecast and finds it to be a reasonable approach to establish rates.

Energy and Peak Demand Savings

The Company projects that by the end of 2020 the DSM and EE programs will have reduced annual electric usage by a cumulative 2,837,654 megawatt-hours and will have the capability to reduce the annual one-hour peak usage by 397 megawatts. These are considerable savings and may provide DEP the ability to avoid or defer the construction of any required new generating facilities.

Opt-Outs

In its 2018 filing, the Company reported that 173 industrial and commercial customers, representing 62.6% of DEP's industrial and commercial load, opted out of the Company's DSM and EE programs. In this filing, the Company reports that, as of December 31, 2018, 172 industrial and commercial customers have chosen to opt-out of its DSM and EE programs. These customers represent approximately 65.7% of DEP's industrial and commercial load. Two industrial and commercial customers elected to opt-in to the programs in 2018.

Rate Impact

The approved rates for DSM/EE Rider-10 and the Company's requested rates for Rider DSM/EE-11 are shown in Table 2.

Table 2: Comparison of Current and Requested Rates

DSM/EE Rider	Approved Rider 10 *(¢/kWh)*	Requested Rider 11 *(¢/kWh)*	Difference *(¢/kWh)*	Percentage Change (%)
Residential	1.049	0.671	(0.378)	-36%
General Service	0.636	0.722	0.086	13%

The decrease in the residential rate is largely due to the (over)recovery of program costs in previous years that is corrected in the true-ups in this filing and DEP's corrections to the amortization of certain DSDR costs as reflected in the amended application.

Conclusion

ORS finds that the updated Rider DSM/EE-11 (as amended) was developed in accordance with the terms and conditions set forth by the Commission and is based on reasonable estimates of participation in the Company's DSM and EE programs. ORS recommends the approval of the following Rider DSM/EE-11 rates as illustrated in Table 3.

Table 3: Rate Recommendation

DSM/EE Rider	Requested Rider 11 *(¢/kWh)*	Difference *(¢/kWh)*	Percentage Change (%)
Residential	0.671	(0.378)	-36%
General Service	0.722	0.086	13%

If approved, the change in Rider DSM/EE-11 for an average residential customer using 1,000 kWh per month will decrease the customer's monthly bill by approximately $3.78. The Company is requesting the updated rates associated with Rider DSM/EE-11 be effective for bills rendered on and after January 1, 2020.

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DEP Revenue Request for DSM/EE Programs

For the Rate Period of January 1, 2020 - December 31, 2020

	Residential		General Service		Total of EE and DSM Portions		Combined Total
	EE Portion	DSM Portion	EE Portion	DSM Portion	EE Portion	DSM Portion	DSM/EE Total
Rate Period Unamortized Program Costs:							
Estimated Rate Period Program Costs excluding DSDR	$4,927,417	$2,252,565	$3,367,850	$798,159	$8,295,267	$3,050,724	$11,345,991
Estimated Rate Period Program Costs for DSDR	$0	$2,748,841	$0	$1,301,663	$0	$4,050,504	$4,050,504
Total Estimated Rate Period Program Costs	$4,927,417	$5,001,406	$3,367,850	$2,099,822	$8,295,267	$7,101,228	$15,396,495
Program Cost Revenue Requirement for Rate Period							
Amortized Estimated Rate Period Program Costs excluding DSDR	$2,253,724	$750,855	$1,122,617	$266,055	$3,376,341	$1,016,910	$4,393,251
Estimated Rate Period Program Costs for DSDR	$0	$2,748,841	$0	$1,301,663	$0	$4,050,504	$4,050,504
Prior Period Amortization	$4,357,759	$1,932,655	$3,138,651	$488,000	$7,496,410	$2,420,655	$9,917,065
A&G and Carrying Costs	$1,051,065	$516,738	$677,439	$162,100	$1,728,504	$678,838	$2,407,342
Rate Period Program Cost Revenue Requirement	$7,662,548	$5,949,089	$4,938,707	$2,217,818	$12,601,255	$8,166,907	$20,768,162
Total Revenue Requirement							
Test Period (Over)/Under Recovery as of December 31, 2018	($3,263,289)	($640,574)	$1,069,858	($2,959,227)	($2,193,431)	($3,599,801)	($5,793,232)
Rate Period Program Cost Revenue Requirement	$7,662,548	$5,949,089	$4,938,707	$2,217,818	$12,601,255	$8,166,907	$20,768,162
Net Lost Revenues	$2,635,216	$0	$3,574,581	$1,150	$6,209,797	$1,150	$6,210,947
Amortization of PPI	$1,461,783	$1,546,567	$1,685,517	$106,650	$3,147,300	$1,653,217	$4,800,517
Total Revenue Requirement	$8,496,258	$6,855,082	$11,268,663	($633,609)	$19,764,921	$6,221,473	$25,986,394
DSM/EE Rate Rider 11							
Total Revenue Requirement	$8,496,258	$6,855,082	$11,268,663	($633,609)			
South Carolina Rate Class KWh Sales	2,314,833,670	2,314,833,670	1,479,928,112	1,471,997,769			
Rate Rider prior to Adjustments (Cents/kWh)	0.367035	0.296137	0.761433	(0.043044)			
RECD and Uncollectible Adjustment	0.004867						
Gross Receipts Tax and Regulatory Fee Adjustment	0.003350		0.003820	(0.000220)			

	Residential	General Service		
		EE Portion	DSM Portion	Total
DSM/EE Rider 11 (Cents/kWh)	**0.671**	**0.765**	**(0.043)**	**0.722**